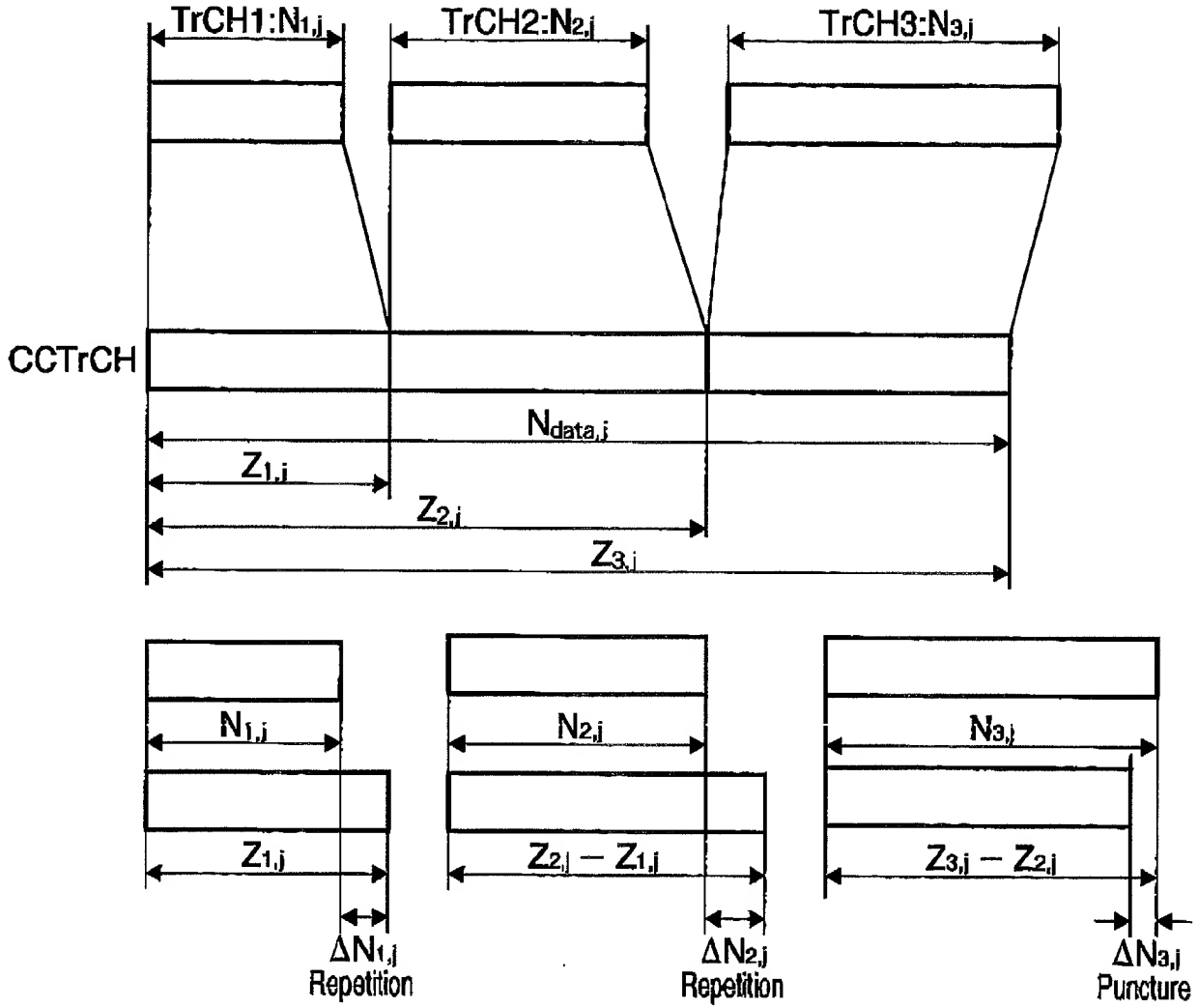


FIG. 1

TrCH NUMBER	RM i	THE NUMBER OF BITS PER FRAME BEFORE RATE MATCHING
TrCH#1	256	270
TrCH#2	250	690
TrCH#3	240	540
TrCH#4	200	600

FIG. 2

TrCH NUMBER	Δ Nij
TrCH#1	+67(Repetition)
TrCH#2	+153(Repetition)
TrCH#3	+93(Repetition)
TrCH#4	− 13(Puncture)

FIG. 3

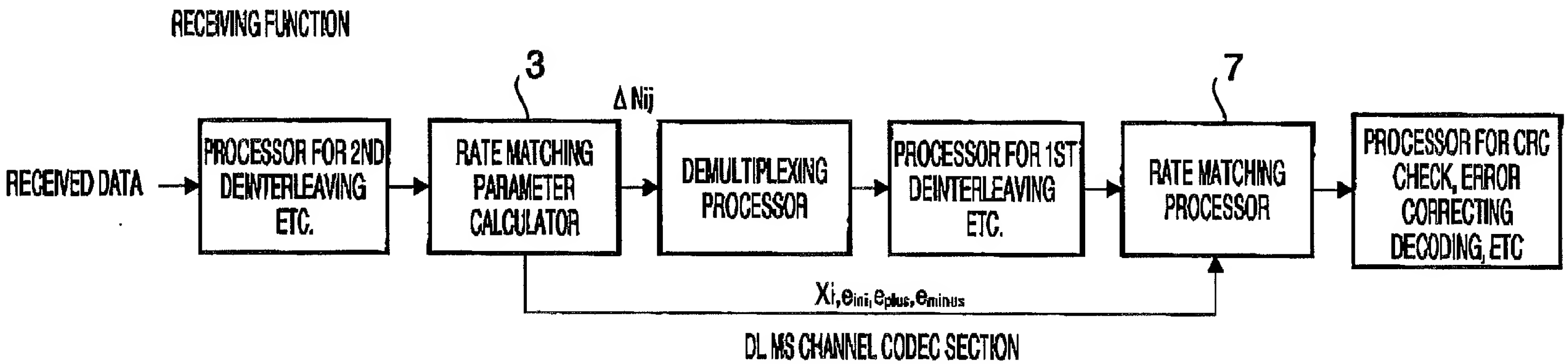

RECEIVING FUNCTION
RECEIVED DATA
PROCESSOR FOR 2ND DEINTERLEAVING ETC.
3
RATE MATCHING PARAMETER CALCULATOR
Δ Nij
DEMULTIPLEXING PROCESSOR
PROCESSOR FOR 1ST DEINTERLEAVING ETC.
7
RATE MATCHING PROCESSOR
PROCESSOR FOR CRC CHECK, ERROR CORRECTING DECODING, ETC
Xi, eini, eplus, eminus
DL MS CHANNEL CODEC SECTION

FIG. 4

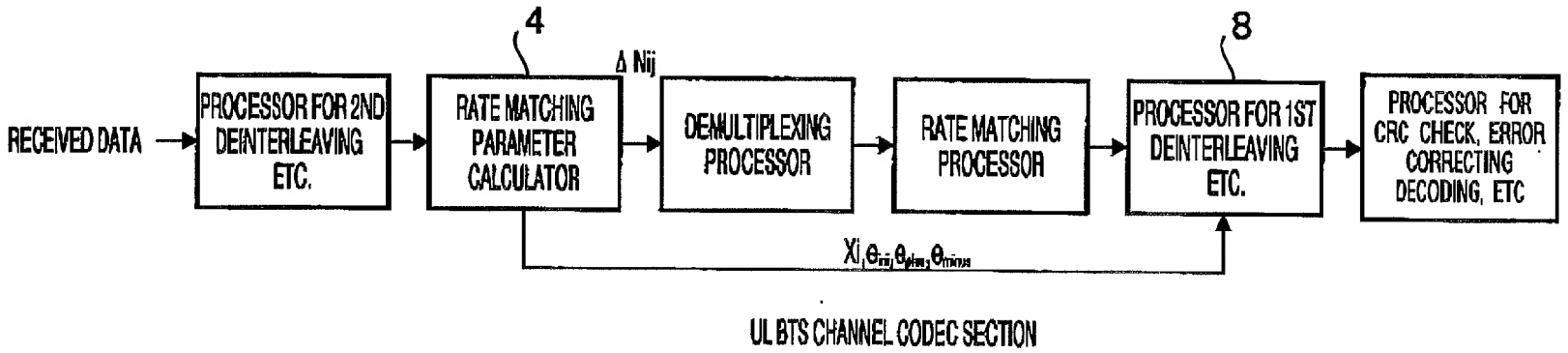

4
8
Δ Nij
RECEIVED DATA
PROCESSOR FOR 2ND DEINTERLEAVING ETC.
RATE MATCHING PARAMETER CALCULATOR
DEMULTIPLEXING PROCESSOR
RATE MATCHING PROCESSOR
PROCESSOR FOR 1ST DEINTERLEAVING ETC.
PROCESSOR FOR CRC CHECK, ERROR CORRECTING DECODING, ETC
Xi, eini, eplus, eminus
UL BTS CHANNEL CODEC SECTION

FIG. 5

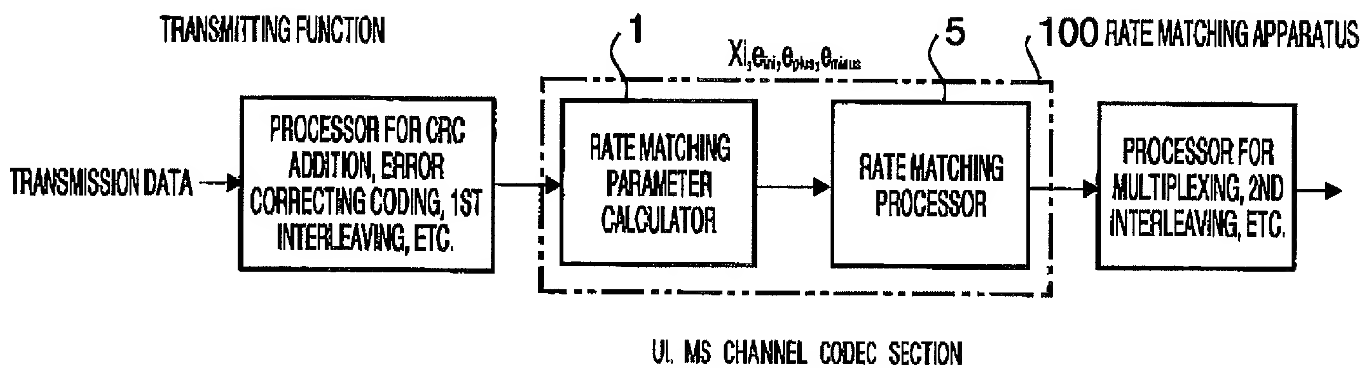
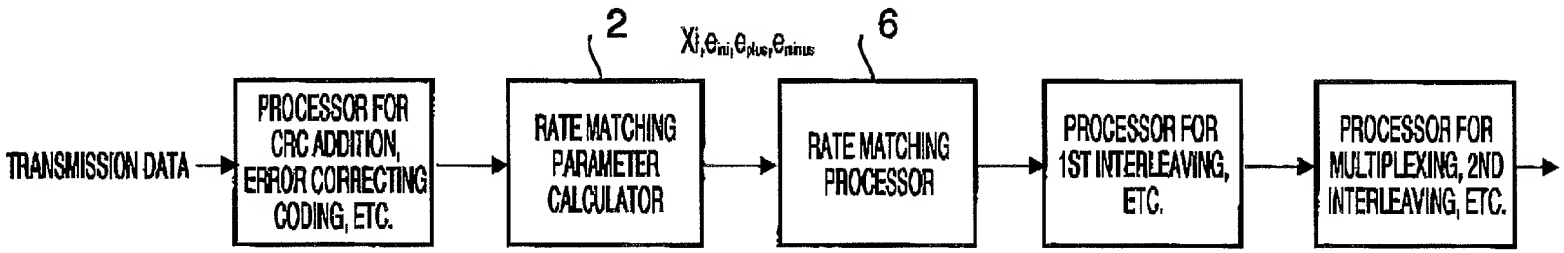

TRANSMITTING FUNCTION
TRANSMISSION DATA
PROCESSOR FOR CRC ADDITION, ERROR CORRECTING CODING, 1ST INTERLEAVING, ETC.
1
RATE MATCHING PARAMETER CALCULATOR
Xi, eini, eplus, eminus
5
RATE MATCHING PROCESSOR
100 RATE MATCHING APPARATUS
PROCESSOR FOR MULTIPLEXING, 2ND INTERLEAVING, ETC.
UL MS CHANNEL CODEC SECTION

FIG. 6



DL BTS CHANNEL CODEC SECTION

FIG. 7

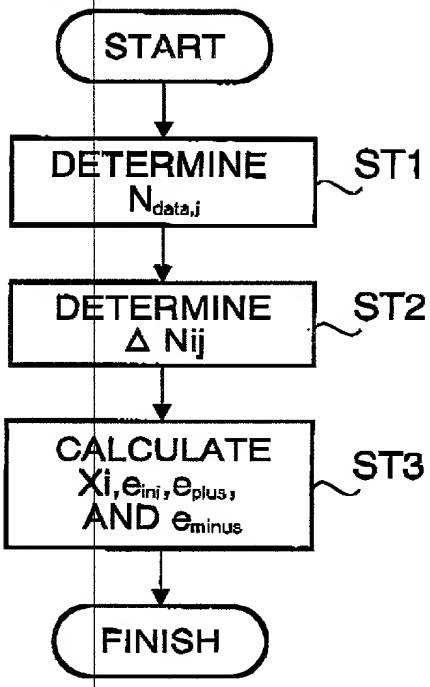

START
DETERMINE
$N_{data,i}$
ST1
DETERMINE
Δ Nij
ST2
CALCULATE
Xi, e_{ini}, e_{plus},
AND e_{minus}
ST3
FINISH

FIG. 8

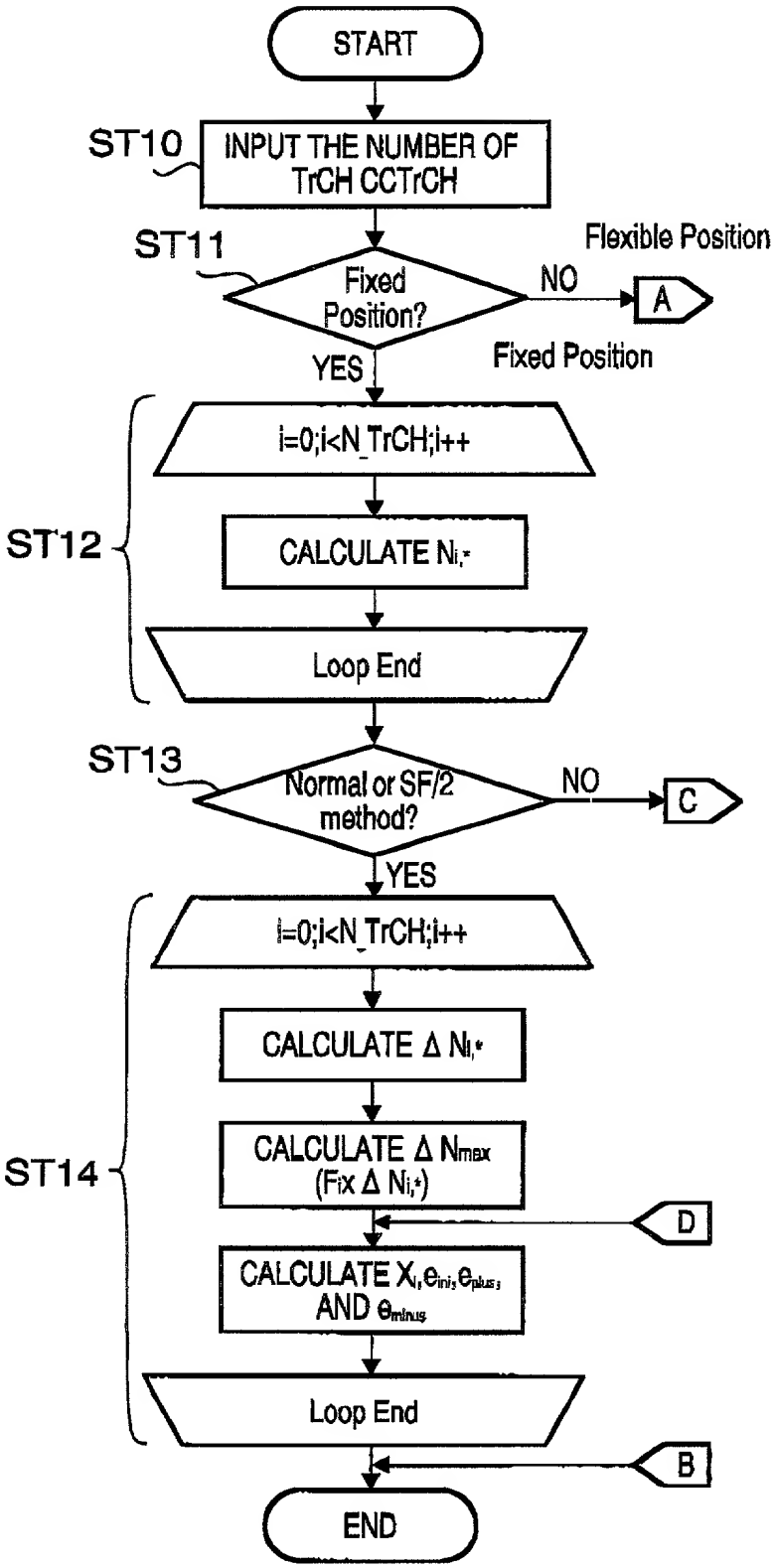

START
ST10
INPUT THE NUMBER OF TrCH CCTrCH
ST11
Fixed Position?
Flexible Position
NO
A
YES
Fixed Position
ST12
i=0;i<N_TrCH;i++
CALCULATE Ni,*
Loop End
ST13
Normal or SF/2 method?
NO
C
YES
ST14
i=0;i<N_TrCH;i++
CALCULATE Δ Ni,*
CALCULATE Δ Nmax (Fix Δ Ni,*)
D
CALCULATE Xi, eini, eplus, AND eminus
Loop End
B
END

FIG. 9

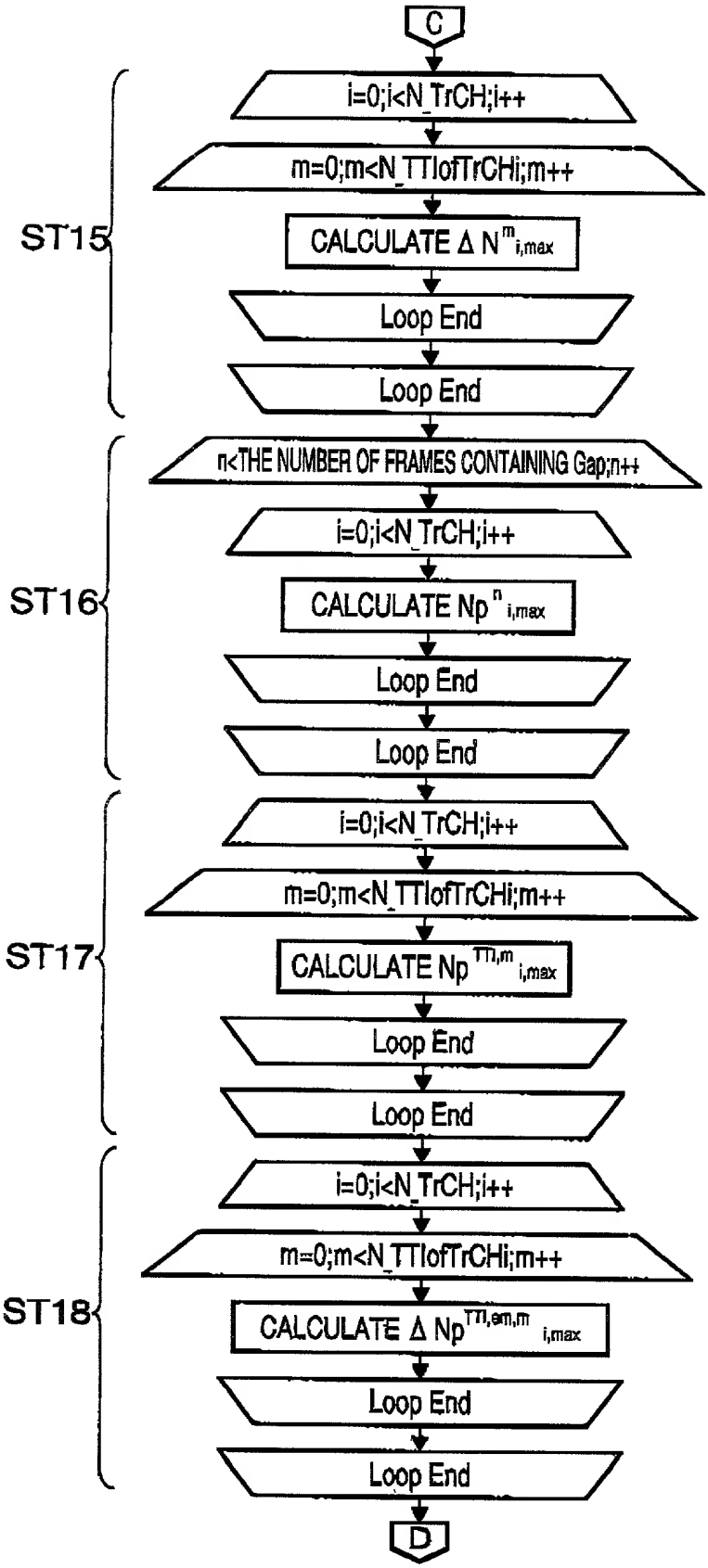

C
i=0;i<N_TrCH;i++
m=0;m<N_TTIofTrCHi;m++
CALCULATE Δ N^m i,max
Loop End
Loop End
ST15
n<THE NUMBER OF FRAMES CONTAINING Gap;n++
i=0;i<N_TrCH;i++
CALCULATE Np^n i,max
Loop End
Loop End
ST16
i=0;i<N_TrCH;i++
m=0;m<N_TTIofTrCHi;m++
CALCULATE Np^TTI,m i,max
Loop End
Loop End
ST17
i=0;i<N_TrCH;i++
m=0;m<N_TTIofTrCHi;m++
CALCULATE Δ Np^TTI,en,m i,max
Loop End
Loop End
ST18
D

FIG. 10

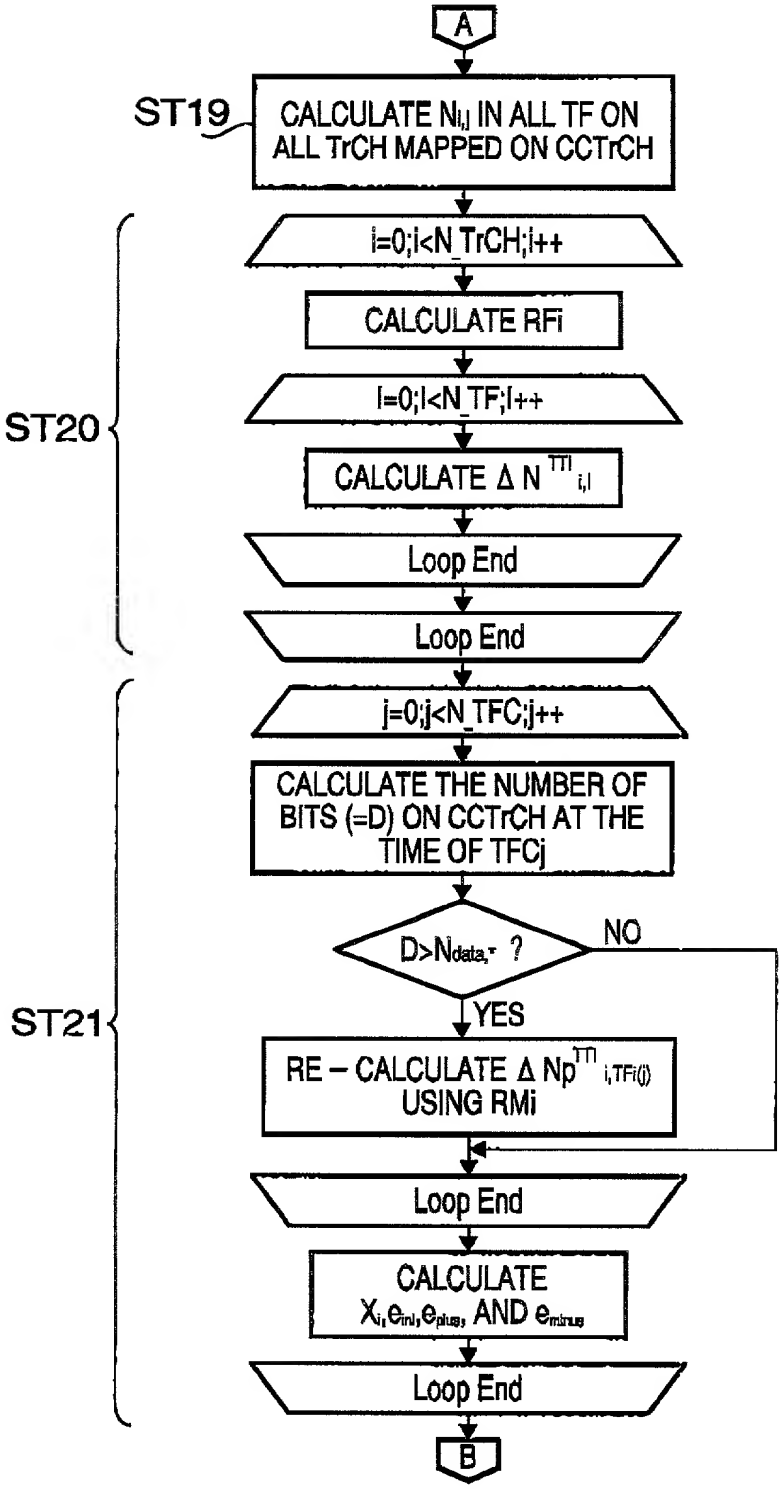

A
ST19
CALCULATE $N_{i,l}$ IN ALL TF ON ALL TrCH MAPPED ON CCTrCH
i=0;i<N_TrCH;i++
CALCULATE RFi
ST20
l=0;l<N_TF;l++
CALCULATE $\Delta N^{TTI}_{i,l}$
Loop End
Loop End
j=0;j<N_TFC;j++
CALCULATE THE NUMBER OF BITS (=D) ON CCTrCH AT THE TIME OF TFCj
D>$N_{data,r}$?
NO
ST21
YES
RE – CALCULATE $\Delta Np^{TTI}_{i,TFi(j)}$ USING RMi
Loop End
CALCULATE X_i, e_{ini}, e_{plus}, AND e_{minus}
Loop End
B

FIG.11

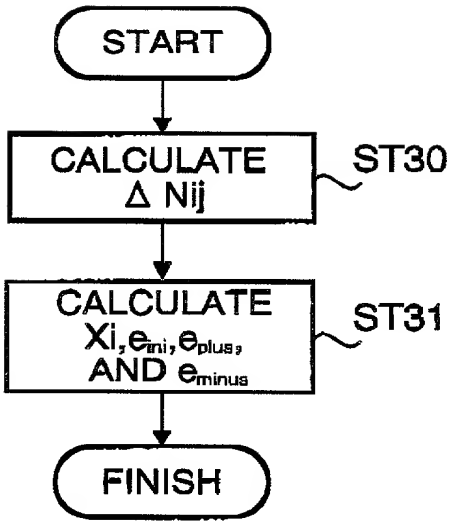

START
CALCULATE
Δ Nij
ST30
CALCULATE
Xi, e_{ini}, e_{plus},
AND e_{minus}
ST31
FINISH

FIG.12

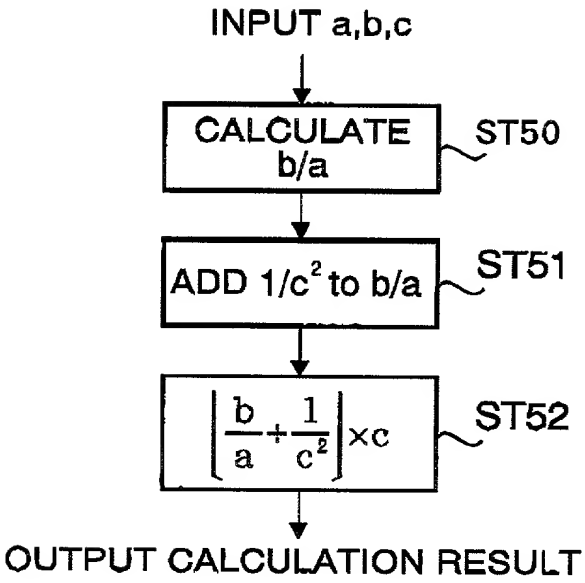

INPUT a,b,c
CALCULATE b/a
ST50
ADD 1/c² to b/a
ST51
[b/a + 1/c²] ×c
ST52
OUTPUT CALCULATION RESULT

FIG.13

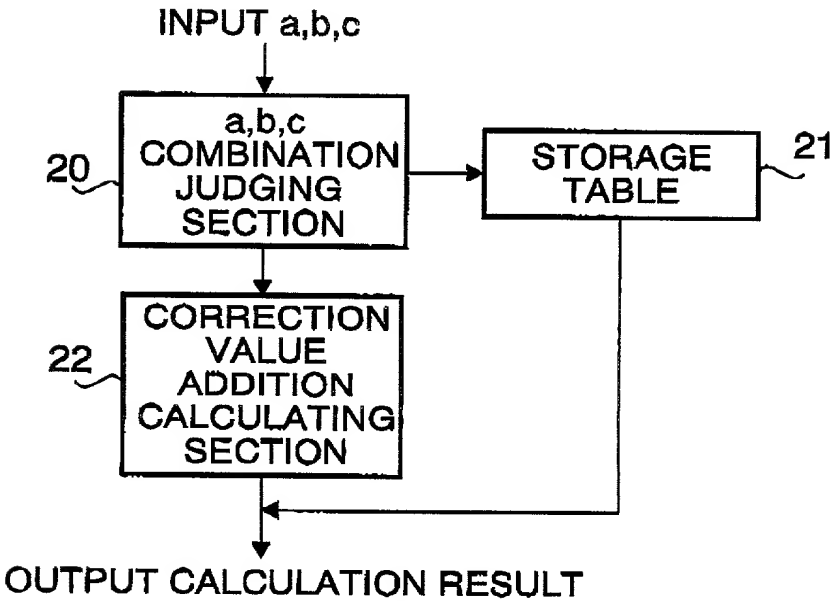

INPUT a,b,c
20
a,b,c COMBINATION JUDGING SECTION
STORAGE TABLE
21
22
CORRECTION VALUE ADDITION CALCULATING SECTION
OUTPUT CALCULATION RESULT

FIG.14

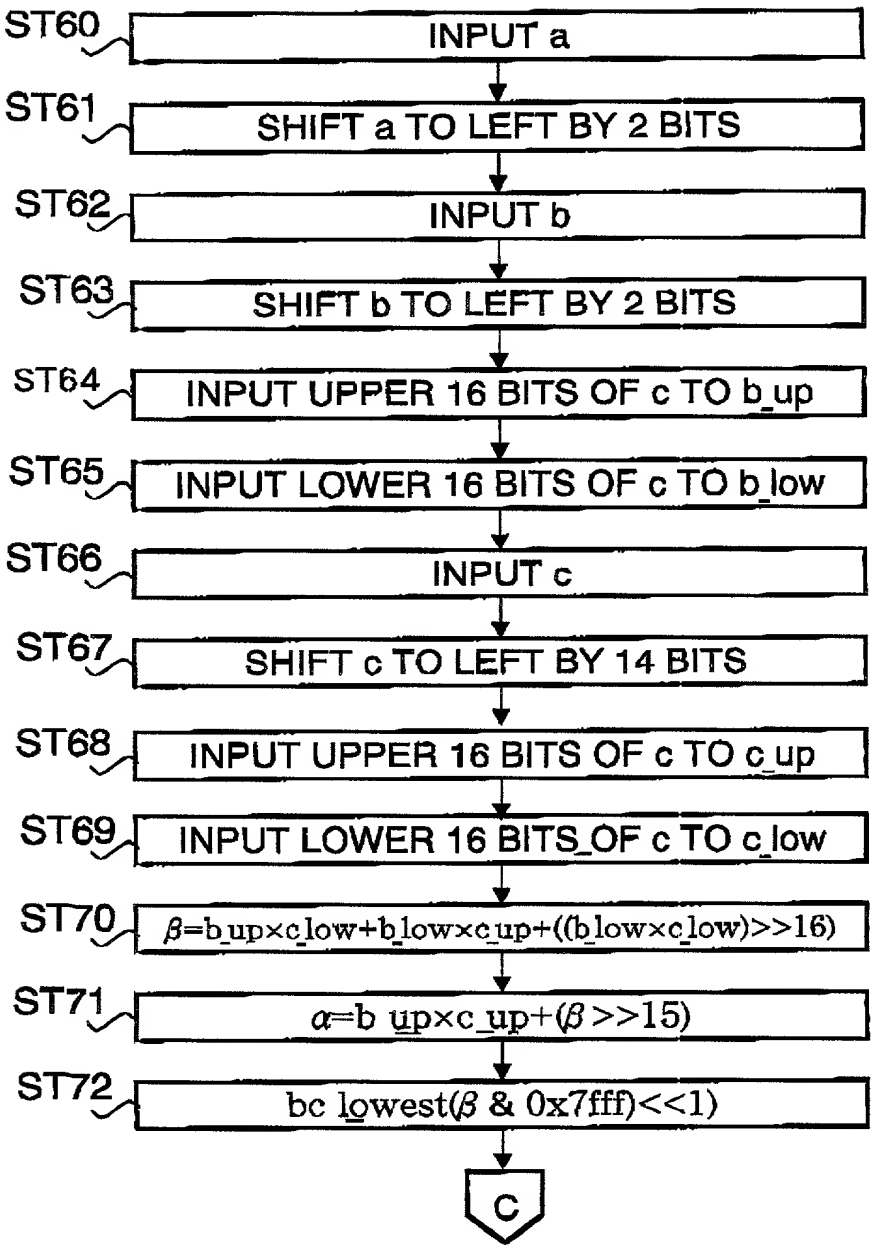

ST60
INPUT a
ST61
SHIFT a TO LEFT BY 2 BITS
ST62
INPUT b
ST63
SHIFT b TO LEFT BY 2 BITS
ST64
INPUT UPPER 16 BITS OF c TO b_up
ST65
INPUT LOWER 16 BITS OF c TO b_low
ST66
INPUT c
ST67
SHIFT c TO LEFT BY 14 BITS
ST68
INPUT UPPER 16 BITS OF c TO c_up
ST69
INPUT LOWER 16 BITS_OF c TO c_low
ST70
β=b_up×c_low+b_low×c_up+((b_low×c_low)>>16)
ST71
α=b_up×c_up+(β>>15)
ST72
bc lowest(β & 0x7fff)<<1)
C

FIG.15

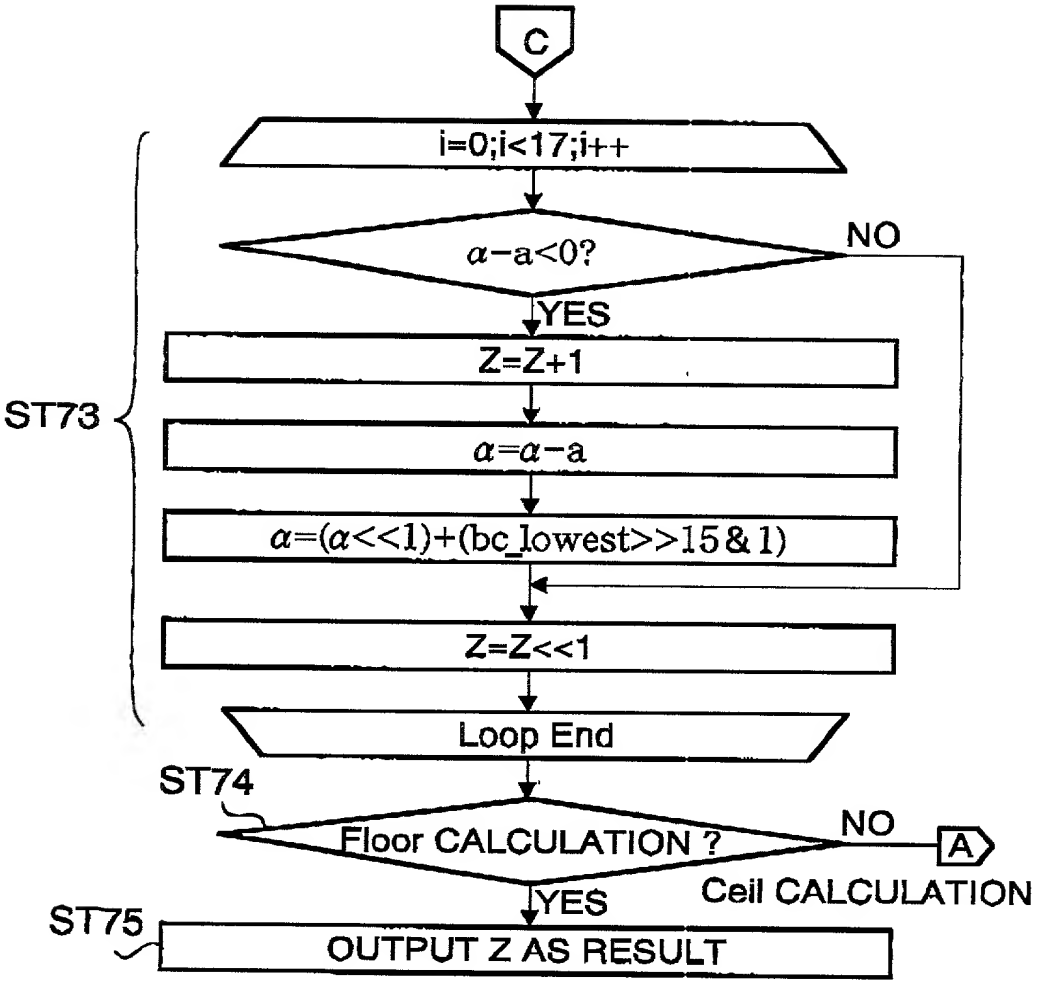

C
i=0;i<17;i++
α−a<0?
NO
YES
Z=Z+1
α=α−a
α=(α<<1)+(bc_lowest>>15&1)
Z=Z<<1
Loop End
ST73
ST74
Floor CALCULATION ?
NO
A
Ceil CALCULATION
YES
ST75
OUTPUT Z AS RESULT

FIG. 16

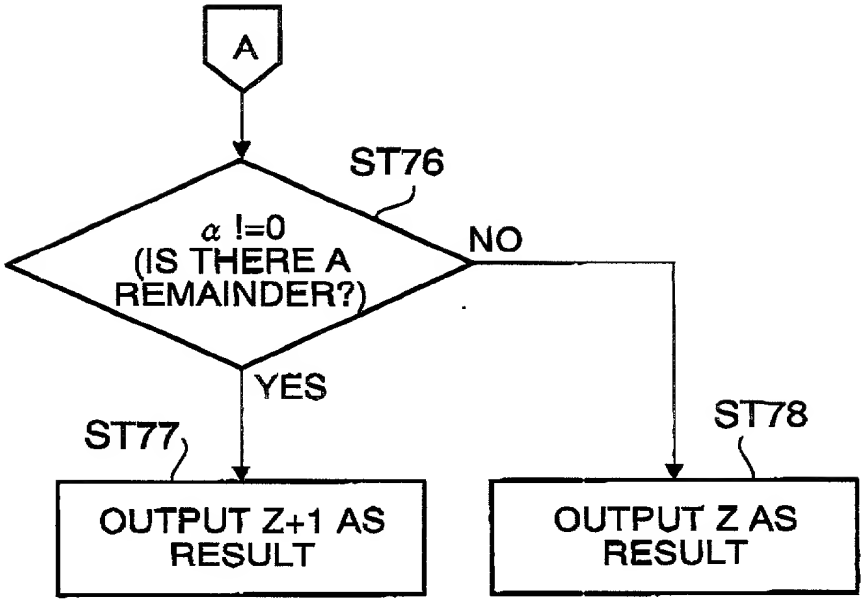

A
ST76
α !=0
(IS THERE A
REMAINDER?)
NO
YES
ST77
ST78
OUTPUT Z+1 AS
RESULT
OUTPUT Z AS
RESULT

FIG.17

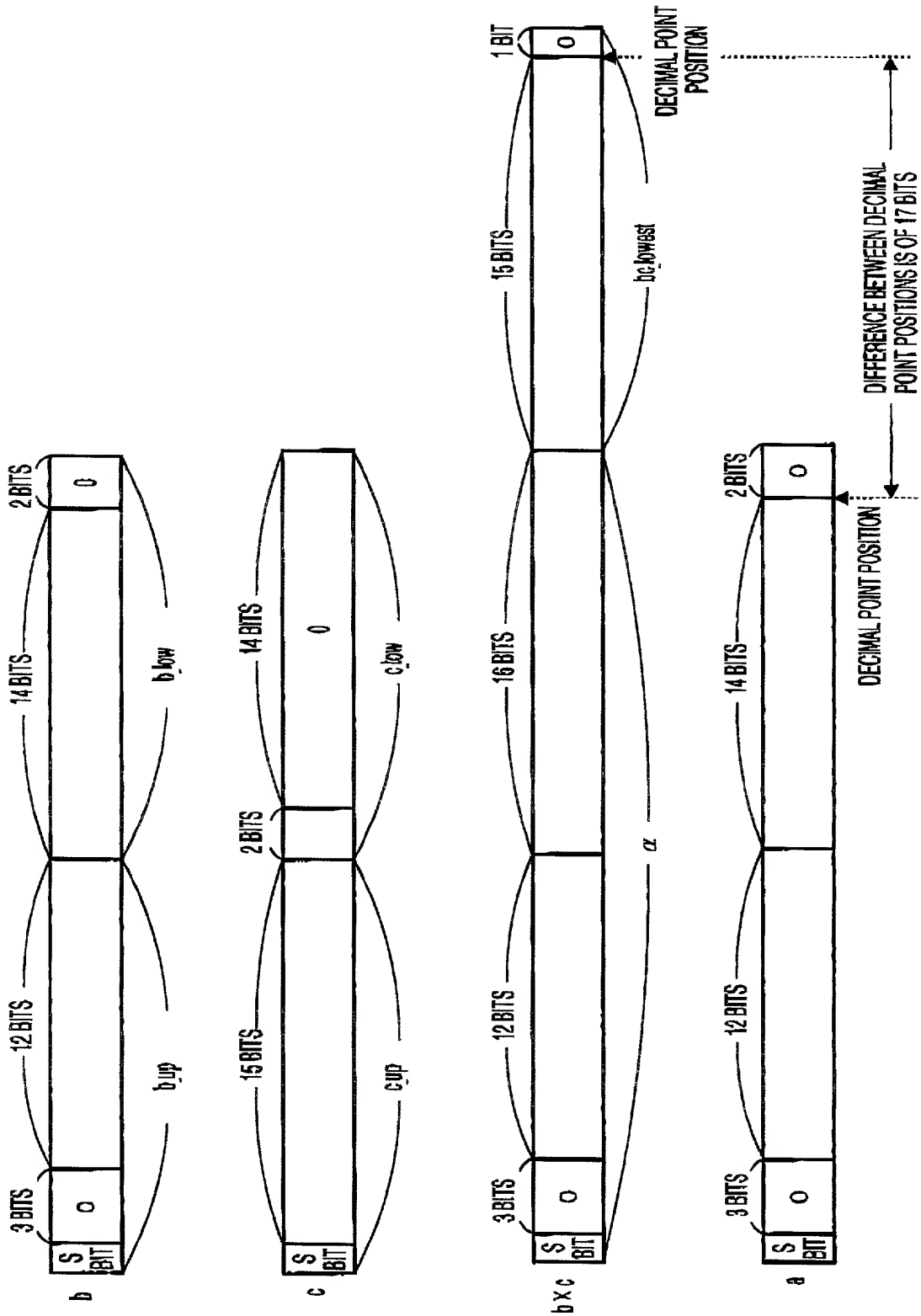


FIG.18